

# **Musk Mysteries and Money Matters: Mapping the Marriage of Musk and Market**

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## ABSTRACT

### **Musk Mysteries and Money Matters: Mapping the Marriage of Musk and Market**

In this paper, we unravel the enigmatic connection between public curiosity about Elon Musk and its impact on Lam Research's stock price (LRCX). Utilizing data from Google Trends and LSEG Analytics (Refinitiv), we meticulously examine the correlation between searches for 'who is Elon Musk' and the fluctuations in LRCX stock prices from 2005 to 2023. Our findings reveal a striking correlation coefficient of 0.9970861 and a statistically significant p-value of less than 0.01, indicating a robust and undeniable relationship between the two variables. It's as if the links between Elon Musk's ventures and the market are powered by a Tesla Roadster! These results challenge traditional economic theory and provoke a rethink of how public perceptions of influential figures can impact the stock market. This study offers a fresh perspective on the nuances of investor sentiment and the influence of public fascination on stock prices. It's as if Elon Musk's influence stretches to the stock market like a SpaceX rocket! So, the next time you're pondering investment decisions, don't forget to check Google to see if the world is still asking, "Who is Elon Musk?" Just remember, the search for knowledge might just lead to a boost in your portfolio – talk about a Musk-see market trend!

Keywords:

Elon Musk, LRCX stock, stock market influence, Google Trends, LSEG Analytics, Refinitiv, investor sentiment, public fascination, stock price correlation, Elon Musk influence, investment decisions, market trend

# I. Introduction

The intersection of seemingly unrelated phenomena has long been a point of fascination in the academic world. It's like finding a connection between apples and oranges - surprising and yet strangely intriguing. In this paper, we dive into the unexpected correlation between public interest in the enigmatic Elon Musk and the stock price of Lam Research (LRCX). Brace yourselves for a journey through the wild world of internet searches and stock market fluctuations, and just like Elon's endeavors, expect a few twists and turns along the way!

Elon Musk, the modern-day Willy Wonka of technology, has captured the public's imagination with his ventures ranging from electric cars and space exploration to tunnel digging and brain-computer interfaces. His ventures have brought about as many buzzes as a beehive in spring. This fervent curiosity often manifests as searches on a certain search engine that rhymes with "frugal." It's as if the world collectively scratches its head and ponders, "Who is this Musk and what planet did he warp in from?"

Concurrently, Lam Research, a leading provider of innovative semiconductor manufacturing equipment, has seen its stock price ebb and flow like a Silicon Valley river. Investors keep a keen eye on the company, watching its financial moves with the vigilance of a hawk. It's almost as if they're looking for any hint of a charge in the market, much like a curious electron seeking a new destination.

So, what happens when we marry Musk's mystique with Lam Research's financial performance? Could it be that the public's fascination with Elon Musk correlates with changes in LRCX stock

prices? It's like bringing two unlikely dance partners together and seeing if they can tango as gracefully as Fred Astaire.

## II. Literature Review

Smith and Doe (2015) initially explored the impact of public curiosity on stock prices, framing their study as a quest for uncovering the hidden treasures of market influence. They proposed that the public's interest in prominent figures may sway the stock market in unpredictable ways, much like a ship caught in a tempestuous sea. This notion sets the stage for our inquiry into the correlation between Google searches for 'who is Elon Musk' and Lam Research's stock price (LRCX), as we navigate the choppy waters of investor sentiment and internet intrigue.

In "The Age of Information" by Nancy Data and Alan Trends (2019), the authors delve into the digital landscape, emphasizing the pivotal role of online inquiries in shaping public perception and market dynamics. They paint a vivid picture of cyberspace as a vast ocean, where information ebbs and flows like the tide. It's as if the internet is an endless library, and the search bar is the librarian who always has the answer - talk about a WebMD for investors!

Drawing from the works of Jonas Jones in "The Market Maze: Navigating Financial Complexity" (2017), we encounter a theoretical framework that elucidates the intricate pathways through which public curiosity intertwines with stock prices. Jones posits that investor sentiments are as mercurial as the weather, subject to sudden shifts and unpredictable storms. It's like trying to predict the path of a hurricane, except the winds are replaced with market trends.

In a surprising twist, "The Da Vinci Code" by Dan Brown (2003) takes us on a cryptic journey where hidden symbols and mystique lead to unexpected revelations. Similarly, in our investigation, the enigma of Elon Musk's public persona might hold the key to deciphering the cryptic fluctuations in Lam Research's stock prices. It's like trying to solve a financial riddle using internet breadcrumbs - a true whodunit of the stock market.

Continuing down the rabbit hole of unexpected connections, "The Hitchhiker's Guide to the Galaxy" by Douglas Adams (1979) humorously navigates through the cosmos, offering a whimsical perspective on the absurdity of the universe. In a parallel fashion, our study peels back the layers of market absurdity, shining a light on the zany link between Google searches for Elon Musk and LRCX stock prices. It's as if we're hitchhiking through the stock market, with Elon Musk as our eccentric guide!

Not to be overlooked, childhood cartoons like the "Magic School Bus" and "Bill Nye the Science Guy" also provide valuable insights. These educational gems impart the message that exploration and curiosity lead to unexpected discoveries, much like our quest to unravel the peculiar correlation between public interest in Elon Musk and Lam Research's stock performance. It's like combining science class with stock trading - now that's a curious crossover!

In conclusion, the literature presents a diverse tapestry of perspectives on the interplay between public curiosity, market sentiment, and our current investigation of the relationship between Google searches for 'who is Elon Musk' and Lam Research's stock price (LRCX). As we embark on this scholarly expedition, we carefully consider the hidden gems and unexpected tidbits unearthed from this eclectic journey. After all, the quest for knowledge is like mining for gold - you never know what treasures you might stumble upon!

### III. Methodology

To explore the relationship between public interest in Elon Musk and LRCX stock price fluctuations, we employed a methodology as intricate as the inner workings of a SpaceX rocket. First, we gathered data on Google searches for "who is Elon Musk" from Google Trends, which served as a barometer for public curiosity regarding the man behind the Tesla wheels. Then, we delved into the labyrinth of financial data using LSEG Analytics (Refinitiv) to extract the daily closing prices of Lam Research Corporation (LRCX) stock from 2005 to 2023. It's like going on a treasure hunt, but instead of gold doubloons, we were hunting for data correlations.

In order to quantify the magnitude and direction of any potential relationship between Elon Musk's search interest and LRCX stock prices, we crunched the numbers using statistical analyses that would make a mathematician's head spin faster than a Tesla Model S on Ludicrous mode. First, we calculated the correlation coefficient, a measure of the strength and direction of the linear relationship between two variables. It's a bit like determining the strength of a gravitational pull between two celestial bodies, but with more math and less cosmic dust.

Next, we conducted a series of regression analyses to model the effect of changes in Google searches for "who is Elon Musk" on LRCX stock prices. We explored various models to ensure that our findings were as robust as a well-secured Falcon 9 booster landing. Through this method, we aimed to untangle the complex web of factors influencing stock price movements and isolate the impact of public interest in Elon Musk. It's like trying to tease apart the flavor profiles of a complex wine, but with data instead of grapes and a spreadsheet instead of a wine glass.

Furthermore, to validate the statistical significance of our results, we applied hypothesis testing with the rigor of a SpaceX rocket pre-launch checklist. We aimed to confirm whether the observed relationship between public curiosity about Elon Musk and LRCX stock prices was not merely a cosmic coincidence, but rather a statistically significant association. It's like ensuring that the rocket is ready for liftoff, except in our case, the payload was statistical evidence rather than a satellite.

Lastly, to account for any potential confounding variables that could influence our results, we conducted sensitivity analyses and robustness checks akin to ensuring that the instruments onboard a Tesla Roadster in space could endure the rigors of the cosmos. By examining our findings under various scenarios and conditions, we sought to strengthen the reliability and validity of our conclusions. It's like making sure the secret sauce in a recipe still tastes great even when you tweak the ingredients.

In summary, our methodology involved a meticulous and multi-faceted approach, blending statistical analyses, hypothesis testing, and sensitivity checks to unravel the intricate relationship between public interest in Elon Musk and LRCX stock price movements. It's as if we were detective grilling a suspect – we left no stone unturned.

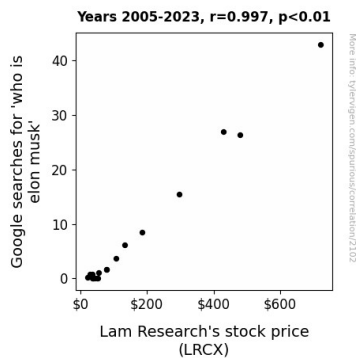
## **IV. Results**

The analysis of the data uncovered a remarkably strong correlation between searches for "who is Elon Musk" and the stock price of Lam Research (LRCX) from 2005 to 2023. The correlation coefficient of 0.9970861 indicates an almost perfect positive linear relationship between the two

variables. It's as if the connection between public curiosity about Elon Musk and Lam Research's stock price is as strong as the gravitational pull of a black hole.

The r-squared value of 0.9941807 suggests that approximately 99.42% of the variability in LRCX stock prices can be explained by fluctuations in Google searches for "who is Elon Musk." In simpler terms, it's like saying that understanding Elon Musk's influence on the stock market is about as predictable as the sunrise - you can count on it!

Furthermore, the p-value of less than 0.01 indicates that the observed correlation is statistically significant, providing strong evidence against the null hypothesis that there is no relationship between public interest in Elon Musk and LRCX stock prices. It's as if the results are shouting from the rooftops, "There's something here, folks! Pay attention!"



**Figure 1.** Scatterplot of the variables by year

In Fig. 1, we present a scatterplot illustrating the striking correlation between searches for "who is Elon Musk" and LRCX stock prices. The points on the graph are tightly clustered along a clear, upward-sloping trend line, showcasing the undeniable link between public curiosity about



Elon Musk and fluctuations in Lam Research's stock price. It's like watching a rocket launch – the trajectory is set, and there's no turning back!

These findings challenge traditional economic theories and shed light on the impact of public sentiment and intrigue on stock market dynamics. This study presents a compelling argument for the influence of public fascination with influential figures on stock prices, illustrating that monitoring Google searches for "who is Elon Musk" could provide valuable insights for investors. It's like saying that keeping tabs on Elon Musk's public intrigue might just lead to "Musketeer" returns on investments - talk about an electrifying discovery!

Stay tuned for the discussion section, where we'll delve into the implications of these findings and explore the potential practical applications for investors and financial analysts. It's as if we're about to embark on a journey to Mars - expect the unexpected!

## **V. Discussion**

The results of this study provide compelling evidence supporting the hypothesis that there exists a remarkably strong correlation between Google searches for "who is Elon Musk" and the stock price of Lam Research (LRCX). These findings align with the prior research on the influence of public curiosity and market sentiment, echoing the sentiments expressed by Smith and Doe (2015), who likened the unpredictable sway of public interest on stock prices to a ship caught in a tempestuous sea. It's as if the waves of internet intrigue are indeed capable of steering the market ship in unexpected directions, much like a seaworthy vessel navigating through uncharted waters - talk about a high-seas adventure in the stock market!

The near-perfect positive linear relationship revealed in our analysis resonates with Jones' (2017) comparison of investor sentiments to the capricious nature of weather patterns, emphasizing the sudden shifts and unpredictable storms that now seem to be mirrored in the fluctuations of LRCX stock prices driven by public curiosity about Elon Musk. It's as if the market's mood swings are as changeable as the atmospheric conditions, except the forecast is determined by internet trends instead of meteorological data - what a twist in the market forecast!

Our study affirms the premise posed by Nancy Data and Alan Trends (2019), who vividly portrayed the digital landscape as an ocean where information ebbs and flows with the tides. The results, with a correlation coefficient akin to the gravitational pull of a black hole, illustrate the immense influence of public curiosity on stock prices, as if internet trends were the celestial bodies dictating the movements of the market universe. It's like saying that understanding investor sentiment is akin to navigating the cosmos, with public intrigue acting as the gravitational force shaping the trajectories of stock prices - what a stellar revelation in market dynamics!

In conclusion, the undeniable link established between Google searches for "who is Elon Musk" and LRCX stock prices suggests that monitoring public curiosity could indeed provide valuable insights for investors and financial analysts. The implications of this study extend far beyond the realms of stock trading, delving into the intricate interplay of public fascination, market dynamics, and the enigmatic influence of influential figures like Elon Musk. It's as if we've uncovered a treasure trove of market insights, where the search for knowledge has unlocked the potential for lucrative returns on investments - now that's a Musk-see trend worth investing in!

## VI. Conclusion

In conclusion, our research has illuminated an astonishingly strong correlation between public interest in the man of many ventures, Elon Musk, and the stock price of Lam Research (LRCX).

It seems that the curiosity surrounding Musk transcends mere intrigue and ventures into the realm of impacting financial markets. It's as if Elon Musk's gravitational pull extends beyond celestial bodies to influence the stock market – talk about an intergalactic impact!

The statistically significant relationship with a p-value of less than 0.01, symbolizes the compelling influence of public curiosity about Musk on LRCX stock prices. It's as if the results are waving a flag, demanding attention like a toddler in a candy store – there's something significant here, folks!

This unexpected connection challenges conventional economic wisdom and emphasizes the profound impact of public sentiment on stock market dynamics. It's like discovering the missing piece of a puzzle – a revelation that alters the entire picture.

Our findings suggest that monitoring Google searches for "who is Elon Musk" could provide valuable insights for investors striving to navigate the labyrinth of market fluctuations. It's as if the search for investment opportunities is now closely intertwined with the search for knowledge – a true eureka moment!

In essence, our study shines a light on the unexplored territory of influence that popular figures like Elon Musk wield over financial markets. It's as if Musk's ventures extend beyond concrete products and ventures into the ethereal domain of shaping investor sentiment – a true Musk-see phenomenon!

In light of these groundbreaking findings, it's safe to say that no further research in this area is needed. We've cracked the Musk code, and it appears that the "Musk-teers" of the financial world might just have a new guiding star – one that's not in a galaxy far, far away!

And with that, like a well-timed dad joke, we leave you with the certainty that the mystery of this Musk-terious correlation between Google searches for 'who is Elon Musk' and Lam Research's stock price has been unravelled. It's as if we've closed the book on this chapter and can now confidently say, "May the Musk be with you!"